

- [151] P. Kocher, D. Genkin, D. Gruss, W. Haas, M. Hamburg, M. Lipp, S. Mangard, T. Prescher, M. Schwarz, and Y. Yarom, “Spectre Attacks: Exploiting Speculative Execution,” *meltdownattack.com*, 2018.
- [152] M. Schwarz, C. Maurice, D. Gruss, and S. Mangard, “Fantastic Timers and Where to Find Them: High-resolution Microarchitectural Attacks in JavaScript,” in *Financial Cryptography and Data Security - 21st International Conference, FC*, vol. 10322, pp. 247–267, 2017.
- [153] G. J. Duck, X. Gao, and A. Roychoudhury, “Binary Rewriting Without Control Flow Recovery,” in *Proceedings of the 41st ACM SIGPLAN International Conference on Programming Language Design and Implementation, PLDI*, pp. 151–163, 2020.
- [154] A. Nicholson, Q. Stiévenart, A. Mazidi, and M. Ghafari, “Wasmizer: Curating WebAssembly-driven Projects on GitHub,” in *2023 IEEE/ACM 20th International Conference on Mining Software Repositories (MSR)*, pp. 130–141, 2023.
- [155] T. Y. Zhuo, Z. Yang, Z. Sun, Y. Wang, L. Li, X. Du, Z. Xing, and D. Lo, “Source Code Data Augmentation for Deep Learning: A Survey,” *arXiv e-prints*, p. arXiv:2305.19915, May 2023.
- [156] S. Srikant, S. Liu, T. Mitrovskaa, S. Chang, Q. Fan, G. Zhang, and U. O’Reilly, “Generating Adversarial Computer Programs using Optimized Obfuscations,” in *9th International Conference on Learning Representations, ICLR 2021, Virtual Event, Austria, May 3-7, 2021*, OpenReview.net, 2021.
- [157] H. Ye, M. Martinez, X. Luo, T. Zhang, and M. Monperrus, “SelfAPR: Self-supervised Program Repair with Test Execution Diagnostics,” in *37th IEEE/ACM International Conference on Automated Software Engineering, ASE 2022, Rochester, MI, USA, October 10-14, 2022*, pp. 92:1–92:13, ACM, 2022.
- [158] W. Zhang, S. Guo, H. Zhang, Y. Sui, Y. Xue, and Y. Xu, “Challenging Machine Learning-based Clone Detectors via Semantic-preserving Code Transformations,” *IEEE Trans. Software Eng.*, vol. 49, no. 5, pp. 3052–3070, 2023.
- [159] H. Li, X. Zhou, L. A. Tuan, and C. Miao, “Rethinking Negative Pairs in Code Search,” *arXiv preprint arXiv:2310.08069*, 2023.
- [160] J. D. Seideman, *Transformation and Abstraction to Aid Comparison of Binary Executables Across Compilation Environments*. PhD thesis, City University of New York, 2023.

- [161] H. Huang, A. M. Youssef, and M. Debbabi, “BinSequence: Fast, Accurate and Scalable Binary Code Reuse Detection,” *Proceedings of the 2017 ACM on Asia Conference on Computer and Communications Security*, 2017.
- [162] J. Jang, A. Agrawal, and D. Brumley, “ReDeBug: Finding Unpatched Code Clones in Entire OS Distributions,” in *2012 IEEE Symposium on Security and Privacy*, pp. 48–62, 2012.
- [163] H. Jang, K. Yang, G. Lee, Y. Na, J. D. Seideman, S. Luo, H. Lee, and S. Dietrich, “QuickBCC: Quick and Scalable Binary Vulnerable Code Clone Detection,” in *ICT Systems Security and Privacy Protection*, pp. 66–82, 2021.

Part II

Included papers

WEBASSEMBLY DIVERSIFICATION FOR MALWARE EVASION

Javier Cabrera-Arteaga, Tim Toady, Martin Monperrus, Benoit Baudry
Computers & Security, Volume 131, 2023

<https://www.sciencedirect.com/science/article/pii/S0167404823002067>

WASM-MUTATE: FAST AND EFFECTIVE BINARY DIVERSIFICATION FOR WEBASSEMBLY

Javier Cabrera-Arteaga, Nick Fitzgerald, Martin Monperrus, Benoit Baudry
Submitted to Computers & Security, under revision

CROW: CODE DIVERSIFICATION FOR WEBASSEMBLY

Javier Cabrera-Arteaga, Orestis Floros, Oscar Vera-Pérez, Benoit Baudry, Martin Monperrus

Network and Distributed System Security Symposium (NDSS 2021), Workshop on Measurements, Attacks, and Defenses for the Web

<https://doi.org/10.14722/madweb.2021.23004>

MULTI-VARIANT EXECUTION AT THE EDGE

Javier Cabrera-Arteaga, Pierre Laperdrix, Martin Monperrus, Benoit Baudry
*Conference on Computer and Communications Security (CCS 2022), Workshop
on Moving Target Defense (MTD)*

<https://dl.acm.org/doi/abs/10.1145/3560828.3564007>

SUPEROPTIMIZATION OF WEBASSEMBLY BYTECODE

Javier Cabrera-Arteaga, Shrinish Donde, Jian Gu, Orestis Floros, Lucas Satabin, Benoit Baudry, Martin Monperrus

Conference Companion of the 4th International Conference on Art, Science, and Engineering of Programming (Programming 2021), MoreVMs

<https://doi.org/10.1145/3397537.3397567>

SCALABLE COMPARISON OF JAVASCRIPT V8 BYTECODE TRACES

Javier Cabrera-Arteaga, Martin Monperrus, Benoit Baudry
*11th ACM SIGPLAN International Workshop on Virtual Machines and
Intermediate Languages (SPLASH 2019)*

<https://doi.org/10.1145/3358504.3361228>